REMARKS

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, are respectfully requested.

At the outset, Applicants note with appreciation the indication that claim 2 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims (Official Action at page 5).

By the above amendments, claim 2 has been canceled, and claim 1 has been amended for clarification purposes by incorporating the features of claim 2 therein. Claim 1 has also been amended for readability purposes by replacing the word "having" with "comprising", and for clarification purposes by replacing the phrase "formed thereon" with "arranged above the current collector". In light of the cancellation of claim 2, claim 3 has been amended to depend from claim 1.

In addition, claim 10 has been canceled, and claim 8 has been amended for clarification purposes by incorporating the features of claim 10 therein. Claim 8 has also been amended for clarification purposes by reciting that the buffer layer comprising a horizontal layer. Support for this amendment can be found in the specification at least at page 7, lines 15-18 taken in connection with FIGS. 1 and 2(f). Claim 8 has further been amended for readability purposes by replacing the word "having" with "comprising", and for clarification purposes by replacing the phrase "formed thereon" with "arranged above the current collector".

New claim 11 depends from claim 8 and recites that the thickness of the buffer layer is in the range of 50 to 250 Å. Support for new claim 11 can be found in the specification at least

at page 9, lines 22 and 23. New claims 12 and 13 depend from claim 8 and recite that the entire anode active material layer is arranged above the buffer layer, and that the entire buffer layer is arranged above the current collector, respectively. Support for new claims 12 and 13 can be found in the original application at least in FIG. 2(f). New claims 14 and 15 depend from claim 1, and recite that the silicon layer consists of silicon, and the silver layer consists of silver, respectively.

In the Official Action, claims 1, 5 and 7 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,498,495 (*Takada et al*). Claims 1, 5 and 6 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,051,340 (*Kawakami et al*). Claims 3 and 4 stand rejected under 35 U.S.C. §103(a) as being obvious over *Kawakami et al.*

As discussed above, claim 1 has been amended to incorporate the features of claim 2 therein. The Patent Office has indicated that claim 2 contains allowable subject matter. For at least the above reasons, withdrawal of the rejections based on *Takada et al* and *Kawakami et al* is respectfully requested.

Claims 8-10 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,235,427 (*Idota et al*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

According to one aspect of the present invention, as defined by claim 8, an anode thin film for a lithium secondary battery is provided comprising a current collector and an anode active material layer arranged above the current collector. The anode active material layer is a single-layer thin film comprising silicon (Si) and silver (Ag). The anode thin film further comprises a buffer layer between the current collector and the anode active material layer, the

buffer layer comprising a horizontal layer being made of at least one selected from the group consisting of vanadium, nickel, molybdenum and copper.

Idota et al relates to a lithium secondary battery. *Idota et al* discloses a silicic material capable of intercalating and deintercalating lithium which can be used as a negative electrode material (col. 2, lines 14-16). The silicic material is in the form of ultrafine particles (col. 2, lines 26-30). The ultrafine particles are coated with metal for improving discharge capacity and cycle life (col. 5, line 40 to col. 6, line 23).

Idota et al does not disclose each feature recited in claim 8, and for this reason fails to constitute an anticipation of such claim. For example, *Idota et al* does not disclose a buffer layer between the current collector and the anode active material layer, the buffer layer comprising a horizontal layer, as recited in claim 8. As acknowledged at page 4 of the Official Action, *Idota et al* discloses a metal-plated ultrafine particle. However, there is simply no disclosure that such metal plating on the ultrafine particle is in the form of a horizontal layer.

As discussed above, the anode thin film of claim 8 contains an anode active material layer, a buffer layer and a current collector. That is, by definition, the anode active material layer and the buffer layer are separate, distinct layers. In stark contrast, *Idota et al* appears to disclose a layer of metal-plated ultrafine particles applied on a current collector (col. 2, lines 4-7). Such layer of metal-plated particles cannot properly be considered the same as the separate anode active material layer and buffer layer recited in claim 8. At best, *Idota et al* merely discloses a single layer containing metal-plated ultrafine particles.

Furthermore, absent an improper resort to Applicants' own disclosure, one of ordinary skill in the art would not have been motivated to modify *Idota et al* by replacing the metal

coating on the ultrafine particles thereof, with a buffer layer comprising a horizontal layer, as is presently claimed. As well, no motivation exists to modify *Idota et al* by replacing the layer of metal-plated ultrafine particles with separate anode active material and buffer layers.

For at least the above reasons, it is apparent that *Idota et al* does not anticipate one aspect of the present invention, as defined by claim 8. Accordingly, withdrawal of the §102(e) rejection is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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